

REMARKS

Summary Of The Office Action & Formalities

Claims 1-12 are all the claims pending in the application. By this Amendment, Applicant is adding new claims 13-15. No new matter is added.

Applicant thanks the Examiner for initialing the references listed on form PTO-1449 submitted with the Information Disclosure Statement filed on March 28, 2002.

The prior art rejections are summarized as follows:

1. Claims 1, 2, 6 and 10-12 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Roe et al. (USP 4,006,289) in view of newly cited Leger et al. (USP 5,213,905).

Claims 3-5 and 7-9 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form, including all the limitations of the base and any intervening claims.

Applicant respectfully traverses the prior art rejections.

Claim Rejections - 35 U.S.C. § 103

1. Claims 1, 2, 6 and 10-12 In View Of Roe et al. And Leger et al.

In rejecting claims 1, 2, 6 and 10-12 in view of Roe et al. and Leger et al., the grounds of rejection state that

Roe et al. discloses a telecommunications or power cable that is structurally reinforced by incorporating armoring having one layer of wires (15) wherein the layer of wires includes steel wires (claims 1&6) and does not carry electricity.

Roe et al. does not disclose each of the steel wires being covered in a layer of stainless steel (claims 1, 2, 6 & 10). Leger et al. discloses a composite product comprising a stainless steel sheet being plated on an armor steel sheet to provide the composite product with a good corrosion resistance. It would have been

obvious to one skilled in the art to modify the steel wires of Roe et al. by covering each steel wire with a stainless steel layer as taught by Leger et al. to provide each of the wires a good corrosion resistance as taught by Leger et al.

Re claims 11 and 12, the modified Roe et al. cable discloses that the stainless steel of each composite wire directly contacts the core of steel so as to form a two layered structure.

Office Action at pages 2 and 3. Applicant respectfully disagrees.

As made clear from the above quotation, in rejecting independent claims 1 and 6, the grounds of rejection acknowledge that "Roe et al. does not disclose each of the steel wires being covered in a layer of stainless steel" Office Action at page 2. However, the grounds of rejection rely on newly cited Leger et al. to argue that this reference makes up for the deficiency in Roe et al.

Applicant submits that Leger et al. is non-analogous art, and that only when one is already armed with the fore-knowledge of Applicant's invention would one have known to resort to Leger et al. to modify Roe et al. to arrive at the claimed invention. But, at that point, Leger et al. is being used for hindsight picking and choosing, not for teaching or suggesting the invention. See, e.g., In re Oetiker, 24 USPQ2d 1443, 1446 (Fed. Cir. 1992) ("[t]he combination of elements from non-analogous sources, in a manner that re-constructs the applicant's invention only with the benefit of hindsight, is insufficient to present a prima facie case of obviousness.").

Under US law, a determination that a reference is from a nonanalogous art is twofold:

First [one must] decide if the reference is within the field of the inventor's endeavor. If it is not, [one proceeds] to determine whether the reference is reasonably pertinent to the particular problem with which the inventor was involved.

In re Wood, 202 USPQ 171 (CCPA 1979). Applicant submits that, under this two part test, Leger et al. is nonanalogous art and should be removed from consideration.

First, the present invention is in the field of mechanical reinforcement for cabling, and not in the field of armored flat sheets. This difference is important. In cabling, the mechanical reinforcement or armoring is in the form of strands of wires that provide tensile support for the cabling. The manufacture, composition and assembly of this reinforcement, as well as its performance, are unique to cabling, and entirely different from that for armored flat sheets. Accordingly, Leger et al. is not within the field of Applicant's invention.

Moreover, Leger et al. is not reasonably pertinent to the particular problem with which the inventor was involved, that of providing improved mechanical reinforcement for cabling. Specifically, Leger et al. is directed to a storage tank that uses armored flat sheets of material composed of flat sheets of armored steel that can resist penetration by a projectile, and stainless steel plating for protection against corrosive fluid stored within the tank. The reference notes significant problems in forming the composite flat plated sheet:

When a composite material such as that just described is quenched, the expansions or contractions of the two materials are not the same and the assembly behaves like a bimetallic strip.

To obtain good flatness of the plated sheet after quenching, this operation is preferably carried out in a quenching machine under a press which keeps the sheet quite flat during the quenching, and this limits the residual deformation to a camber of less than 6 mm/meter, whereas, using conventional quenching, the deformation corresponds to cambers greater than 10 mm/meter. Now, since the armor steel is very hard, it is very difficult to flatten a sheet which is thus deformed.

Leger et al. at column 3, lines 46-59. Clearly, these problems and their solutions are unique to flat metal plates and are not pertinent to mechanical reinforcement of cabling.

Moreover, even if, for argument alone, one assumes that Leger et al. is analogous art, one skilled in the art would still not have taken away from this reference the teaching or suggestion alleged by the Examiner. Rather, it appears that the Examiner is picking and choosing only the feature of a stainless steel coating from this reference, while failing to consider the references as a whole as required by Section 2141 of the MPEP. Again, Leger et al. is directed to an improvement in flat armor plates for storage tanks containing corrosive fluids. The armor serves to contain the corrosive fluid while protecting the tank from punctures due to a projectile. The manufacturing problems and performance of the plated armoring are unique to such storage tanks, and are not relevant to cabling. One skilled in the art of cabling would not have even considered this reference. Rather, its citation in the present office action appears to be based on hindsight reconstruction and perhaps a random Boolean search using terms such as "armoring." However, as explained above, the nature of the armoring for the storage tank of Leger et al. is not related to that for cabling.

In view of at least the foregoing distinctions, the Examiner is kindly requested to reconsider and withdraw the prior art rejections of claims 1 and 6, and dependent claims 2 and 10-12.

New Claims

For additional claim coverage merited by the scope of the invention, Applicant is adding new claims 13-15. Claim 13 recites the feature of "armoring being a tube that forms a concentric layer of the cable, the tube obtained from composite steel having a steel core covered in a layer of stainless steel." This feature appears to be a basis for the Examiner's indication that claim 4

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would be in condition for allowance. Accordingly, claim 13 and dependent claims 14 and 15 are also believed to be allowable.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

Applicant hereby petitions for any extension of time which may be required to maintain the pendency of this case, and any required fee, except for the Issue Fee, for such extension is to be charged to Deposit Account No. 19-4880.

Respectfully submitted,



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APPENDIX

VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS:

Claims 13-15 are added as new claims.